



**Bridge Inventory & Structural Recommendation Report  
For  
Roadway Concrete Pavement Rehabilitation Project  
I-15, MP 211-222**

**Structures**

**1F & 3F-454, I-15 NB/SB over Deer Crossing  
1F & 3F-433, I-15 NB/SB over County Road  
1F & 3F-453, I-15 NB/SB over County Road  
1F & 3F-437, I-15 NB/SB over County Road  
1F & 3F-434, I-15 NB/SB over County Road**



<b>Region:</b> 3	<b>Project Manager:</b> John Higgins
<b>Pin:</b> 6576	<b>Project Number:</b> F-I-15-5(39)211
<b>FiNet Number:</b> 5259601D	<b>Fiscal Year:</b> 2011

<b>Prepared by/Date:</b> Tyson Schultz & Cody Buzianis /March 26, 2008
<i>Signature, Director of Bridge Design:</i> <b>Stan Burns</b>
<i>Signature, Director of Bridge Operations:</i> <b>Rukhsana Lindsey</b>

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# REPORT SUMMARY

## **Scope of Project:**

### **1. Purpose of Report**

This report presents a conceptual overview of a project to perform Concrete Pavement Rehabilitation treatments for Bridges on I-15. It is intended to convey the need, scope, schedule, budget, and quality control process for the project.

### **2. Project Information**

**Region:** 3 **Route No.:** I-15 **Date:** March 2008

**Project Name:** I-15; MP 211-222

**R.P.:** 211-222

**Project Number:** F-I15-5(39)211

**PIN:** 6576

**FiNet:** 5299601D

**Project Design:** Bridge: UDOT Structures Division; Region 3

**Project Mgr:** John Higgins

### **3. Deficiencies & History: (Summarized from Project Inventory Report):**

**The 2007 inspection report indicates the following:**

Bridge	Year Built	Sufficiency Rating	Deck	Super	Sub	Construction History
1F-454	1984	97.7	7	8	7	None 1989-2007
3F-454	1984	97.7	7	8	7	None 1989-2007
3F-433	1984	93.7	6	7	7	None 1989-2007
1F-433	1984	93.7	6	7	7	None 1989-2007
3F-453	1984	93.7	7	7	7	None 1989-2007
1F-453	1984	93.7	7	7	7	None 1989-2007
1F-437	1984	93.7	7	7	7	None 1989-2007
3F-437	1984	93.7	7	7	7	None 1989-2007
3F-434	1984	93.7	7	7	7	None 1989-2007
1F-434	1984	93.7	7	7	7	None 1989-2007

**Deficiencies (includes but are not limited to):**

**Structure All listed above on I-15 MP211-222**

**As of the Latest Inspection Report (11/8/2007):**

- Deck & Approach Slabs have minor cracking with efflorescence with few visible shallow potholes.
- Parapet have minor scaling with no spalling or rebar exposed.

**4. Plan:**

This project is intended to provide “*rehabilitation treatments*” to extend the bridge life. By adding a healer sealer to the bridge decks and approach slabs. Then perform pothole patching and seal the parapets.

**5. Work items to be completed:**

This project will include the following items

- Apply healer sealer on the decks and approach slabs
- Perform pothole patching
- Waterproofing Membrane
- 2” HMA overlay
- 1” OGSC overlay
- Parapet sealing

**6. Work items to be deferred:**

This project won’t include the following items:

- Roadway and safety items beyond what is related to the bridge repairs will not be included.

**7. Design Exceptions:**

No Design Exceptions are expected.

**8. Maintenance Considerations:**

Include Region 3 Maintenance Station 3422 in the concept development.

**9. Construction Considerations:**

The healer/sealer should be applied during temperatures ranging between 60°F to 80°F. If it is at all possible avoid hot summers when cracks are tight.

**10. Risk Analysis:**

Not Anticipated.

**11. Development Process:**

New or Major Reconstruction

Rehabilitation

Preservation

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\_\_\_\_\_x\_\_\_\_\_

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### **Schedule of Project:**

Schedule meets roadway project deadline.

### **Budget of Project:**

1.	<b>Funding Source:</b>	<b>Federal Fund</b>
2.	<b>CAA</b>	<b>\$ 23,000,000</b>
3.	<b>Cost Estimate:</b>	<b>\$ 410,480</b>

<b>I-15 MP 211-222</b>				
<b>ITEM</b>	<b>QUANTITY</b>	<b>UNIT</b>	<b>UNIT COST</b>	<b>TOTAL COST</b>
<b>Structures</b>				
<b>1 F &amp; 3 F-454</b>				
Healer/Sealer Deck/Approach Slabs	9010	SF	\$ 2.00	\$ 18,020.00
Pothole Patching (up to 2%)	180	SF	\$ 20.00	\$ 3,600.00
Waterproof Membrane	9010	SF	\$ 2.00	\$ 18,020.00
3" Overlay (2" HMA & 1" OGSC)	169	TONS	\$ 120.00	\$ 20,272.50
Parapet Sealing	441	LF	\$ 5.00	\$ 2,205.00
<b>1 F &amp; 3 F-433</b>				
Healer/Sealer Deck/Approach Slabs	7881	SF	\$ 2.00	\$ 15,762.00
Pothole Patching (up to 2%)	155	SF	\$ 20.00	\$ 3,100.00
Waterproof Membrane	7881	SF	\$ 2.00	\$ 15,762.00
3" Overlay (2" HMA & 1" OGSC)	148	TONS	\$ 120.00	\$ 17,732.25
Parapet Sealing	386	LF	\$ 5.00	\$ 1,930.00
<b>1 F &amp; 3 F-453</b>				
Healer/Sealer Deck/Approach Slabs	7982	SF	\$ 2.00	\$ 15,964.00
Pothole Patching (up to 2%)	160	SF	\$ 20.00	\$ 3,200.00
Waterproof Membrane	7982	SF	\$ 2.00	\$ 15,964.00
3" Overlay (2" HMA & 1" OGSC)	150	TONS	\$ 120.00	\$ 17,959.50
Parapet Sealing	390	LF	\$ 5.00	\$ 1,950.00
<b>1 F &amp; 3 F-437</b>				
Healer/Sealer Deck/Approach Slabs	8412	SF	\$ 2.00	\$ 16,824.00
Pothole Patching (up to 2%)	168	SF	\$ 20.00	\$ 3,360.00
Waterproof Membrane	8412	SF	\$ 2.00	\$ 16,824.00
3" Overlay (2" HMA & 1" OGSC)	158	TONS	\$ 120.00	\$ 18,927.00
Parapet Sealing	412	LF	\$ 5.00	\$ 2,060.00
<b>1 F &amp; 3 F-434</b>				
Healer/Sealer Deck/Approach Slabs	9862	SF	\$ 2.00	\$ 19,724.00
Pothole Patching (up to 2%)	198	SF	\$ 20.00	\$ 3,960.00
Waterproof Membrane	9862	SF	\$ 2.00	\$ 19,724.00
3" Overlay (2" HMA & 1" OGSC)	185	TONS	\$ 120.00	\$ 22,189.50
Parapet Sealing	483	LF	\$ 5.00	\$ 2,415.00
<b>Subtotal</b>				<b>\$ 297,448.75</b>
Traffic Control				Included in Roadway
Mobilization				Included in Roadway
Public Information Service				Included in Roadway
Roadway Tie In (150-feet on each end of bridge)				Included in Roadway
<b>Subtotal</b>				<b>\$ 297,448.75</b>
PE/CE 18%				\$ 53,540.78
Contingency 20%				\$ 59,489.75
<b>Project Total</b>				<b>\$ 410,479.28</b>

## Location Map

I-15, MP 211-222





